

АРХИТЕКТУРА

UDC 72.02

**Project of Revalorization and Extension
of the Historic Monastery Complex of St Sigismund's Parish
in Częstochowa (Poland) — A Case Study***N. Sołkiewicz-Kos, N. V. Kazhar, M. Zadworny*Politechnika Częstochowska,
69, ul. J. H. Dąbrowskiego, Częstochowa, 42-201, Republic of Poland

For citation: Sołkiewicz-Kos, Nina, Nina Kazhar, and Mariusz Zadworny. "Project of Revalorization and Extension of the Historic Monastery Complex of St Sigismund's Parish in Częstochowa (Poland) — A Case Study". *Vestnik of Saint Petersburg University. Arts* 12, no. 2 (2022): 295–318.
<https://doi.org/10.21638/spbu15.2022.205>

This article presents theoretical problems related to the renovation of historic buildings in Europe of the second half of the 20th and the beginning of the 21st century. They concern the creation of scientifically justified concepts and methods of renovation aimed at preserving the authenticity and historical significance of monuments. Historical architectural developments, including buildings from different eras, determine the individual appearance of historic European cities. Architectural monuments allow one to become aware of the originality of culture and character traits of each nation. Therefore, in the context of globalization, the study, protection and use of historical objects is one of the factors shaping the national self-awareness. Practical activities related to the adaptation of historical cultural space to contemporary needs were discussed on the example of the revalorization of a 15th-century religious complex located in the historic area of the city of Częstochowa in Poland. This area, called the "Old Town", is one of the main elements of the compositional canvas of the town's urban layout (beginning of the 19th century). The revalorization of the St Sigismund church complex together with the monastery buildings, due to the importance for the urban layout of the city, as well as due to its historical, cultural and religious significance, constituted an essential challenge for designers, archaeologists, historians and local authorities.

Keywords: architecture, architectural heritage, revalorization of historical structures, urban revitalization, civil engineering.

Introduction

This article presents theoretical problems related to the renovation of historic buildings in the European conditions of the second half of the 20th century and the beginning of the 21st century. This period is characterized by the creation of scientifically justified concepts and methods of renovation aimed at preserving the authenticity and historical significance of monuments. The effect of these activities is the legal and material foundations for the protection of cultural heritage (Venice Charter, 1964). The tasks related to the protection of architectural monuments are closely related to their maintenance and simultaneous adaptation to modern functions. In the context of globalization, the study, preservation and use of historic buildings is one of the factors shaping national self-awareness.

Practical activities are discussed on the example of the implementation of the revalorization process of the 15th-century sacral complex located in the historic areas of the city of Częstochowa (Poland). The article describes the activities organizing the historic tissue of the sacral complex. The concept of extending the existing monastery complex was also discussed. The authors of the article present the completed architectural, conservation and restoration project. The described case study presents an example of the coherent operation of institutions and people involved in the project of restoration of a historic sacral complex. Apart from the necessity to preserve the historic monastery complex, the aim of the project was also to revitalize the area of the Old Town by introducing the functions of culture and aid for the poor.

Modern methods of restoration of monuments (from the second half of the 20th century)

The destruction of buildings during World War II caused significant changes in the way historic buildings were restored. Previously, the idea of restoration was associated with the knowledge that the damage and changes to a historical building were due to building's age [1]. The post-war situation proved to be quite different. The historical substance and individual architectural monuments were destroyed in a short period of time [2, p. 288; 3, p. 190]. In view of the enormous scale of destruction, not only of monuments but even of entire cities, the issue of reconstruction became particularly important. In the face of the planned destruction of Poland's monuments and cultural heritage during World War II, the main post-war task was to revive monuments of many Polish cities, including Warsaw. Extensive photographic, film, drawing, and painting information, as well as detailed architectural documentation of individual historic buildings that survived the war, provided the basis for undertaking restoration activities.

The diverse approach to the problem of restoration or reconstruction of monuments resulted in the practical application of three methods of restoration and conservation of monuments:

- conversion of the remains of a historic building into a ruined monument (fig. 1);
- full restoration of a monument;
- analysis of the remaining tissue of ruined buildings and reconstruction of monuments 'in situ' [1; 4, p. 8–9] (fig. 2, fig. 3).

This reassessment of the significance of an architectural monument has influenced the approach to solving specific conservation tasks.



Fig. 1. Cathedral in Coventry. Example of the remaining of the monument in the form of “ruins”. Photo by Andrew Walker. https://upload.wikimedia.org/wikipedia/commons/7/79/Coventry_Cathedral_Ruins_with_Rainbow_edit.jpg



Fig. 2. The Royal Castle in Warsaw in 1941. Without roofs, intentionally removed by the Germans in order to accelerate the devastation process. process. Author of the photo is unknown. https://upload.wikimedia.org/wikipedia/commons/5/50/Castle_Warsaw_1941.JPG



Fig. 3. Warsaw. Royal Castle after reconstruction (1971–1984). Photo by Alina Zienowicz.
https://upload.wikimedia.org/wikipedia/commons/9/90/POL_Warsaw_Royal_Castle_2008_%283%29.JPG

In general, it should be noted that all the basic principles of conservation work, formulated in the middle of the 20th century, remain valid. Most contemporary European theorists (A. Barbatstsi, P. Gazzola, P. Leon, C. Perogalli, R. Pane, P. Sanpaolezi, J. Zachwatowicz, St Lorentz and others) treat an architectural monument as both a historical source and a work of art. [5, p. 320; 6, p.363; 7, p. 17–35; 8, p. 15–9; 9, p. 151; 10, p. 49–62]. Therefore, the task of the architect-restorer is to take care of the historical authenticity, while maintaining the current standards of conservation work on an architectural monument. The basic principles of conservation work were developed at the Second International Congress of Architects and Restorers held in Venice in 1964. According to the Venice Charter, conservation must first be carried out on architectural monuments. Renovation as enhancing an architectural monument and restoring its historical and artistic significance is limited and requires strict scientific justification: “restoration must end where hypothesis begins” [2, p. 47].

Much attention has been paid to the role of the monument in the urban ensemble. Architectural ensembles are recognized architectural monuments that “must be given special care” [2, p. 47; 11, p. 86; 12, p. 89]. Characterizing the contemporary methodological trend of restoration, it can be said that today restoration methods are combined with a flexible approach to each specific case, which results from a broader interpretation of the term “architectural monument” [12, p. 89; 13, p. 123; 14, p. 232; 15, p. 143; 16, p. 188; 17, p. 98].

Contemporary conditions of the monument conservation system in Poland

The current shape of the principles of conservation, revitalization, and revalorization of historic buildings in Poland resulted from the political changes that took place in the country at the turn of the 1980s and 1990s. During the communist era, all decisions related to historic monument conservation, concerning design solutions, financing, and available budgets, were the responsibility of state institutions. The conservator represented the state institution. His decisions concerned buildings owned by the state. The entire project was financed by state funds and carried out by a state-owned conservation company [18, p. 7–15].

Currently, there is a process of withdrawal of the state from responsibility for historic resources. With most of the country's "architectural monuments" are becoming private property, and the conservator has changed his function from decision-maker to advisor. When conservation works are financed from private funds, the conservator can only convince the investor to comply with the solutions suggested by him [18, p. 7–15].

The legal basis defining the rules of conduct for the protection of tangible heritage is the Act on the Protection and Care of Monuments of 2003, with later amendments, and the Building Law [I; II]. "Protection of monuments" includes administrative actions undertaken by the Provincial Conservator of Monuments and the Ministry of Culture and National Heritage. In some cases, the duty to protect national heritage in a particular area is carried out by the municipal conservator of monuments [19, p. 14–20]. On the other hand, "care of monuments" is the responsibility of the owner of the object. It refers to carrying out repairs, conservation works together with the preparation of appropriate documentation (design, pre-project). The obligations of the owner also include commissioning research works and acquiring external sources of financing necessary to carry out the conservation activities. All activities undertaken by the owner of the monument are in agreement with the relevant conservation services [19, p. 14–20].

Since the political transformation that took place in Poland in 1989, there has been a continuous debate on the shape of the national program for the protection and care of historical monuments. Despite the passage of three decades, the direction and scope of changes that occur in the system of monument protection have not been definitively determined. As a result of these changes, the conservation community has increasingly limited possibilities of action. Currently, as part of the ongoing discussion on the shape of monument protection in Poland, despite the significant voice of the Polish National Committee ICOMOS and the National Heritage Institute, no comprehensive vision of the new system of monument protection has been developed [20, p. 1–4].

The remainder of this article presents what the process of revitalizing a historic monastic complex looks like in contemporary political, economic and social conditions in Poland.

Revalorization of the sacral complex — case study

Renovation work concerns the medieval sacral complex. It consists of the Gothic Roman Catholic Church of St Sigismund and monastery buildings in Częstochowa. The described complex of buildings is located in the downtown area within the inner area of the Old Town (fig. 4), [21, p. 23–32].

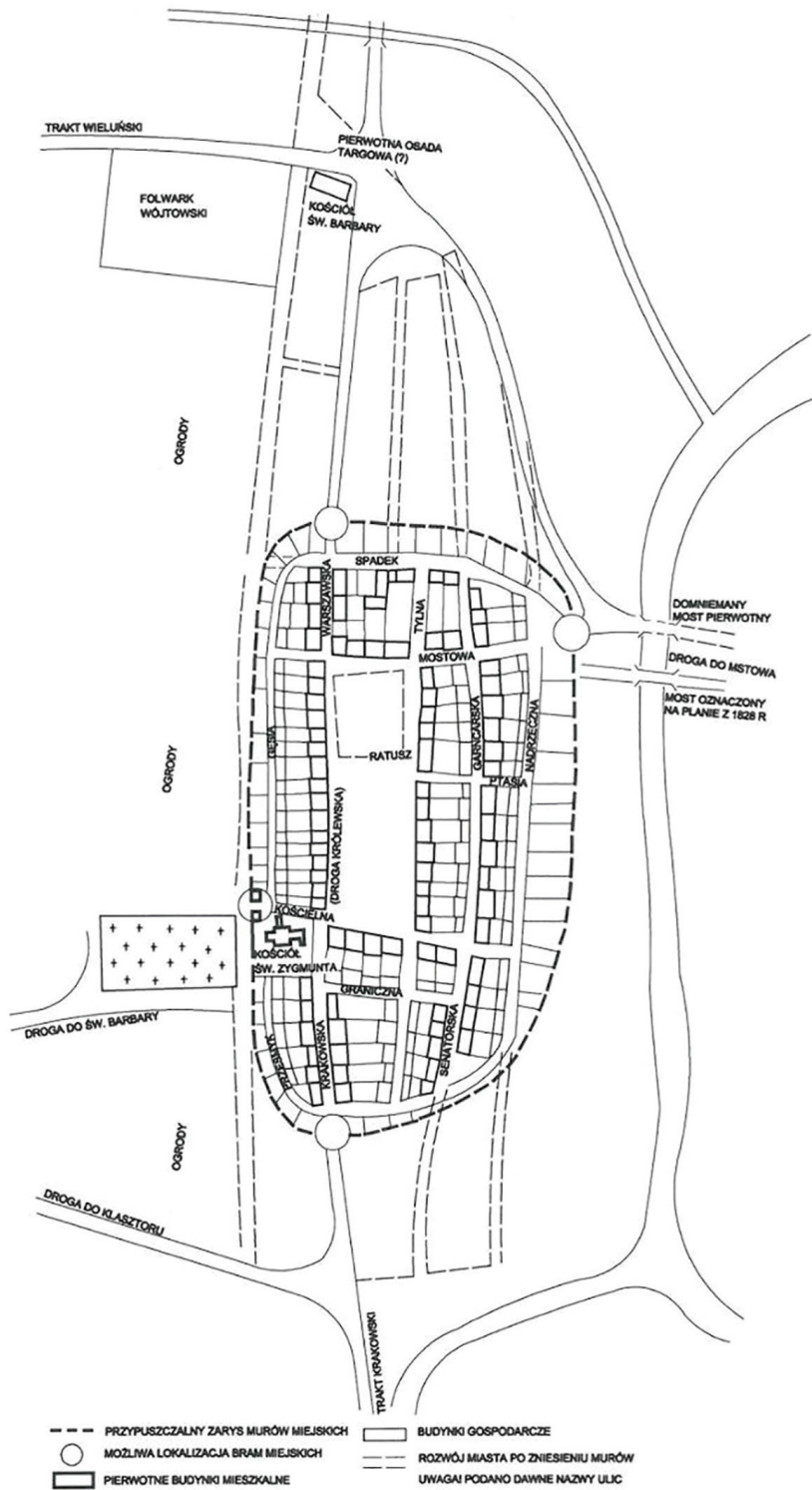


Fig. 4. Layout of the medieval city of Częstochowa (14th century) [16]

This area is covered by the “Urban Revitalization Program for Częstochowa”, whose main objective is to increase the attractiveness of Częstochowa’s urban space through the revitalization of the degraded urban fabric. Revitalization of the sacral complex with monastery buildings, due to its historical and cultural value, is a key element of the revitalization program for the oldest inner-city areas of the city [22, p. 478–82; 23, p. 483–6]. The revitalization of a religious complex involves a number of interdisciplinary activities, including conservation, archaeology, architecture, repair and construction [4, p. 4–10].

Ideological conceptions of revalorization of the sacral complex

The attempt of revalorization of the sacral complex at the St Sigismund’s Church in Częstochowa covers all works connected with conservation, renovation and adaptation of the urban complex. They are aimed at preserving the historical value of an important part of the city. This place plays an extremely important cultural role related to the material and artistic heritage collected over the centuries. The activities undertaken cover not only conservation, architectural and urban planning aspects, but also social aspects, by creating an appropriate functional offer adapted to the contemporary needs of the local community. These activities are based on the concept of revalorization of historic building complexes discussed in more detail in the literature [1].

The concept was based on:

- sociological research covering the problems of existence of the inhabitants of old town areas [24, p. 199–232];
- examination of existing buildings in the context of their extension and revalorization of the historic religious complex;
- studies on the influence of the local cultural environment on architectural functional, structural and stylistic solutions [25, p. 33–43].

The preliminary identification of the above-mentioned issues became the basis for developing directions for social and commercial activities. Social activities concerned the problem of poverty reduction and social exclusion. These phenomena occur among the residents of the Old Town areas. In this area the rate of unemployment and social exclusion is much higher than in other districts of the city of Częstochowa [24, p. 199–232]. The commercial activity assumed the introduction of service functions to the complex.

The main investor, the Roman Catholic parish, decided to cooperate with the project team together with experts from various fields and with the city conservator of monuments. The conservator’s care was necessary in this case due to the character of the project and its location in the Old Town in Częstochowa, in the direct conservation protection zone. During the realisation of the described project task, financial resources of the Marshal of the Silesian Voivodeship and European Union aid funds were used.

Historical origins of the church complex

The historical outline presented below is intended to give an understanding of the importance of this place and the strategy of the activities undertaken. A breakthrough event for Częstochowa, connected with granting it city rights, was the taking of this part of Poland in fief by prince Władysław Opolski. The short period of his reign (1370–1393)



Fig. 5. Buildings of the old town. Fragment of Jan Bensheimer's engraving from 1659 [16]



Fig. 6. A fragment of Jan Aleksander Gorczyn's engraving from 1655 [16]. Next to the church there is a massive, two-story monastery building with a tower topped with a cupola

was marked by two facts in Częstochowa's history which determined the direction of the city's further development. These were the granting of city rights to Częstochowa and the foundation of a monastery on Jasna Góra near Częstochowa [21, p. 23-32]. The parish church of St Sigismund was probably extended in 1382. As we know from the reports of the bishop's visitations of 1598 and 1625, the church was then built of stone and had one gothic tower. In the years 1625–1643 the church was extended again. St Gregory's chapel was added on the south side and St Anne's chapel on the north side (1643). In 1640 Fr Andrzej Gołdonowski, provincial of the Paulines, added a sacristy to the north-east, but this was „closed because of the scratching of the walls and vaults” [21, p. 23–32].

A fairly accurate picture of St Sigismund's church after the construction of St Anne's chapel and sacristy is given to us by the engravings of Bensheimer and Gorczyn. On these drawings, which differ in details, the body of the church is well outlined, with one tower and a chapel added to the northern nave and covered with a cupola with a lantern. By the

church stood a stone belfry (fig. 5, fig. 6) [21, p. 23–32]. In Gorczyn's engraving a massive two-story monastery building with a tower topped with a dome is visible next to the church. It was the rectory of the parish of Częstochowa, and at the same time a monastery, intended for distinguished monks (see: fig. 6).

Development of historical and conservatory documentation

As the building of St Sigismund's church with the monastery buildings is entered in the register of historic monuments, all architectural and construction works required conservation recommendations. These provided guidance for the project and suggested the sequence of works to be undertaken [26, p. 37–52]. When submitting an application to carry out archaeological work, the investor was required to submit a promise to accept movable artefacts acquired in the course of archaeological research. The Museum of the Archdiocese of Częstochowa named after Bishop Teodor Kubina agreed to accept the artefacts.

Archaeological Investigation

The construction works covering the area around the church and the former monastery building were preceded by archaeological research. Their scope was determined by the Voivodeship Conservator of Monuments. The costs of the research and archaeological documentation were covered by the investor — in this case St Sigismund's Parish (in accordance with the Act on the Protection and Care of Monuments of 2003) [I]. In certain cases a part of the said costs may be covered by a grant from the Minister of Culture and National Heritage. The prepared application for the financial subsidy was lost during the construction works. All the archaeological work was covered by the Parish. (Information based on the author's interview with the chief designer architect Mariusz Błażewicz.)

The excavated fragment of the necropolis was a remnant of the parish cemetery functioning at the St Sigismund's Church in the 16th–17th centuries. During the excavations 1053 graves containing 1220 skeletons were uncovered (fig. 7, fig. 8). Double and mass burials were found, which was explained by the probability of an epidemic or some infectious disease. Numerous objects connected with religious cult were found in the graves: medallions with the image of the Madonna and the Child, reliquaries with the image of St Mary or a saint, metal crosses, beads. The skeletons found during the archaeological research were examined by an anthropologist. The bones of the skeletons were put in a common grave in the cemetery "Kule" in Częstochowa that is administered by the church authorities [III].

Museum

At the basement level of the former monastery, a room was renovated and adapted into a museum. The acquired space, adapted for a museum, is a remnant of the "Rolnik" pavilions added to the western wing of the monastery in the 20th century. In the future, the museum room is to be used to display artefacts found through archaeological research. There is a project to physically reconstruct a human bust based on a skull from the cemetery. The walls of the room, made of brick, were cleaned and the joints were filled in. The sectional brick ceiling on steel beams has also been cleaned. A new floor of technical stoneware was laid. The museum room has an entrance from the outside of the building as well as from the inside [IV].



Fig. 7. Archaeological works in the necropolis. During the excavations 1053 graves containing 1220 skeletons were uncovered. Photo by M. Błażewicz



Fig. 8. Archaeological works in the necropolis. Mass burials were explained by the occurrence of an epidemic or some infectious disease. Photo by M. Błażewicz

Before starting the project tasks, it was necessary to prepare historical and conservation documentation. It was carried out at the Silesian Office for Monuments Protection under the direction of Jadwiga Borowska-Antoniewicz, a conservator. The search of source materials did not provide sufficient information about architectural and construction works carried out in the earlier period on the territory of the church complex. Additionally, in the 1990s, the calxtory building was modernized. The dilapidated old external plaster was removed from the building and replaced with new plaster. During the replacement of e. g. the electrical installation, most of the plaster in the interior rooms was removed and new plaster was laid. This action made it difficult to obtain a correct stratigraphic interpretation [27].

In the next stage, an achitectonic inventory of the objects was carried out in order to identify their historic values. The analysis of the object inventory (without excavations) allowed only to identify the buildings added in the 19th and 20th centuries (fig. 9, fig. 10).

The parish priest of St Sigismund as the main investor commissioned a project for the revitalization of the monastery complex. The project included the restoration of the monastery complex with the addition of buildings with a social function (culture, social care). Once the building permit was obtained, further research work was undertaken. This involved architectural research under the supervision of Jadwiga Borowska-Antoniewicz, a conservator, and with the participation of art historian Rafał Eysymontt. The removal of plaster and opencast work made it possible to identify the construction structure of the buildings and the theoretical reconstruction of the individual phases of construction [III]. Conducting excavation work at this stage of construction involved the risk of stopping construction work and the need to make changes to the finished project. The risk, taken by the investor in agreement with the designer, resulted from the necessity to present the finished architectural project in order to obtain external sources of financing before commencing the renovation works.

The financial planning of the investment was related to the punctual realisation of individual stages related to the revitalization of the church complex. The implementation schedule was settled quarterly. Punctual completion of specialist studies (e. g. hydrological, mycological, geological) and construction works made it possible to obtain funds for the works performed. Meeting the deadlines for individual works ensured financial support, and thus continuity of design and construction works until their completion [V]. As a result of the architectural research carried out under conservation supervision and with the participation of an art historian, three architectural phases were distinguished.

The first phase concerns the building erected at the end of the 15th century on an elongated rectangular plan. It was a two-story building made of limestone covered with a gable roof. Ceilings between stories were wooden. On the ground floor there were two separate rooms, one of which, on the northern side, served as a chapter house and the other, on the southern side, as a refectory (fig. 11). On the second story, eight rooms were separated. They were lit up by windows on the western side. Their traces are visible on the western façade in the form of bands, stone recesses. In the later construction phase the layout of the window openings was changed. This (later) layout has been preserved in the



Fig. 9. Demolition of structures in poor condition that were added in the 19th and 20th centuries. The detail of the cornice in the historic monastery building was uncovered. Photo by M. Błażewicz



Fig. 10. Exposed drawing of the cornice together with the architectural detail of the historic monastery building. Photo by M. Błażewicz



Fig. 11. On the first floor of the monastery building (15th century), a room was separated which served as a refectory. Currently adapted as a meeting room. Photo by M. Błażewicz



Fig. 12. Stone window frames in the eastern risalit — from the side of the cloister. Reconstructed on the basis of the preserved elements. The adaptation of historical details found during construction works could not be included in the project and thus did not fall under external funding. All such works had to be covered by the investor's own resources. Photo by M. Błażewicz



Fig. 13. Fragments of a stone window band. These elements were found in the stone wall structure of the building. They served as building material in the next phase of construction. Photo by M. Błażewicz



Fig. 14. The corridor tract on the east side was added in the 17th century. Wooden ceilings were replaced with brick cross vaults. In the realisation, the vault contrasts clearly with the walls to emphasise the difference in the time of their creation. Photo by M. Błażewicz



Fig. 15. The south wing of the monastery was added in 1729; the corridor is covered with barrel vaults with lunettes. Photo by M. Błażewicz

restoration project of the building [III; V]. The most valuable architectural element connected with the oldest monastery building are the two window frames in the eastern risalit from the side of the garth. They were reconstructed on the basis of the preserved elements (fig. 12, fig. 13). These elements were found in the stone wall structure of the building. They served as building material in the next construction phase [III; V].

The second phase of the construction of the monastery took place in the middle of the 17th century. The original narrow building was extended by a corridor on the eastern side. Excavations carried out in the interior of the building confirmed these changes. In addition, the monastery was connected to the church building at first floor level by an arcade porch. In the interior of the building the wooden ceilings were replaced by brick cross vaults (fig. 14). The facade of the building was crowned with a crowning frieze. The flat part of the frieze contains a slightly profiled pattern of ovals and hexagons. Fragments of this frieze are preserved on the eastern façade (northern corner). They were discovered during demolition works.

The last third phase of construction is the south wing of the monastery. The building dates back to 1729 and is a two-aisle structure with numerous rooms covered by barrel vaults with lunettes (fig. 15). The two-aisle building consists of a corridor on the north side and six rooms on the south side. This division is present on each floor. Both stories are connected by a brick staircase with vaulted landings. At the beginning of the 20th century (1905), a row of commercial rooms (fig. 16) was added to the west wing. The western facade was then covered with a thick layer of cement mortar. This covered the 17th century frieze crowning the facade [III; V].

Historical and conservation guidelines for the restoration project of the sacral complex

The architectural and landscape research has made it possible to identify the historic values of the building. The project highlights three main phases of the transformation of the monastic complex. The 15th century phase was highlighted by the exposure of the stone wall structure in the north-west corner of the oldest monastery wing (see: fig. 16). This treatment provides a glimpse of the distinctive limestone masonry structure along with the exposed stone framing of window recesses blinded in later phases of construction. The conservation guidelines stipulated that the entire façade of the monastery complex should be plastered. No evidence remains as to whether the western wing of the monastery was plastered or not in this period. During construction work, numerous fragments of masonry were discovered showing repairs carried out at the time. Their nature may indicate that the stone structure of the external walls was uncovered. As a result of the new discoveries, the conservator allowed a fragment of the wall to be exposed as a “witness to history” [III; V].

The second phase, the 17th century, concerns the western wing. The frieze from the period of the reconstruction of the monastery in the 17th century led by Andrzej Gołdonowski, the provincial of the Pauline Fathers, was reconstructed. The window frames were reconstructed, no traces of which have survived to the present day. The frames from the same period were used as a model, from the Pauline monastery in Pińczów, which was also associated with Andrzej Gołdonowski at the time (fig. 17).

The third phase, the 18th century, was emphasized by the restoration of the partially preserved moulded brick pilasters and the introduction of simple window frames in the south wing of the monastery (fig. 18) [III; V].

The contemporary part and the new function of the building

The new contemporary buildings introduced into the historic monastery complex emphasize the historical dimension of the space and respect the context of the surroundings. This was to facilitate the perception of the historic buildings against the background of the fourth dimension of space — time (fig. 19, fig. 20, fig. 21) [28]. The architectural



Fig. 16. The oldest wing of the monastery (15th century). Exposing a fragment of the wall as a “witness to history”. Photo by N. Sołkiewicz-Kos



Fig. 17. The window frames that did not survive from that period were reconstructed. Frames from the same period in the Pauline Monastery in Priinczow were used as a model.
Photo by M. Błażewicz



Fig. 18. The southern wing of the monastery, the reconstruction of the 18th century remnants of pilasters and the introduction of simple window frames. Photo by M. Błażewicz

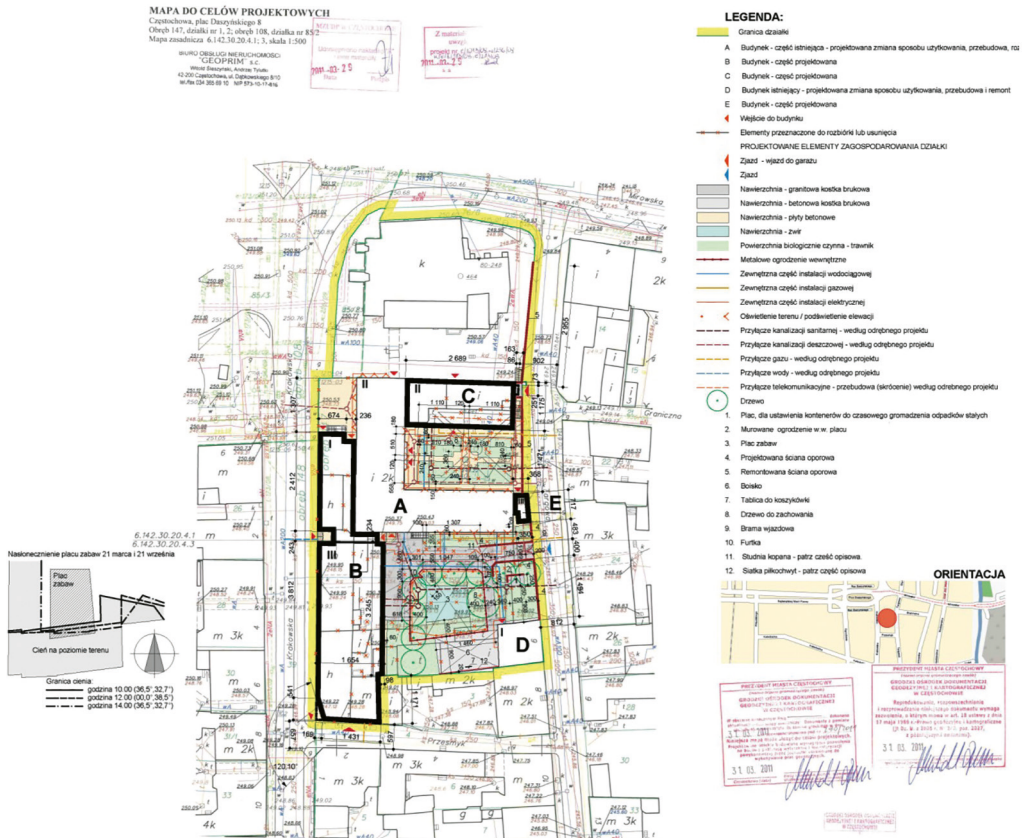


Fig. 19. Revalorisation project — urban layout. A — existing monastery building, B, C, E — planned buildings, D — existing adapted building. Project authors: arch. M. Błażewicz, arch. S. Oset [VI]

and construction design was the consequence of a well thought-out conceptual and financial strategy. The introduced assumptions of the new utility program included social rooms: a kindergarten for children from poor families, a conference room for the local parish community, accommodation for pilgrims, and a rehabilitation center for residents of the downtown district. The functional solutions of the facility should be maintained in accordance with its original purpose for the next 5 years. This is a necessary requirement to preserve the funds received from the European Regional Development Fund. In the future, the commercial activity of the foundation will be related to running a café and a hotel section (for tourists and pilgrims) after the statutory five-year period [III; IV; 29, p. 80].

Selected technological issues

The expansion of the existing church complex, as well as conservation and modernisation works, required the application of specialized technological and material solutions related to the specificity of the project site location. It is important to carry out geotechnical research of the subsoil, its content (archaeological research), technical and hygrothermal condition of the walls, etc. [30]. The methodology of actions carried out in the field of insulation and dehumidification of the walls of the historic religious complex is presented as follows.



Fig. 20. Revalorisation project. View from the north-eastern side. Authors of the project: M. Błażewicz, S. Oset; visualization: P. Najwer

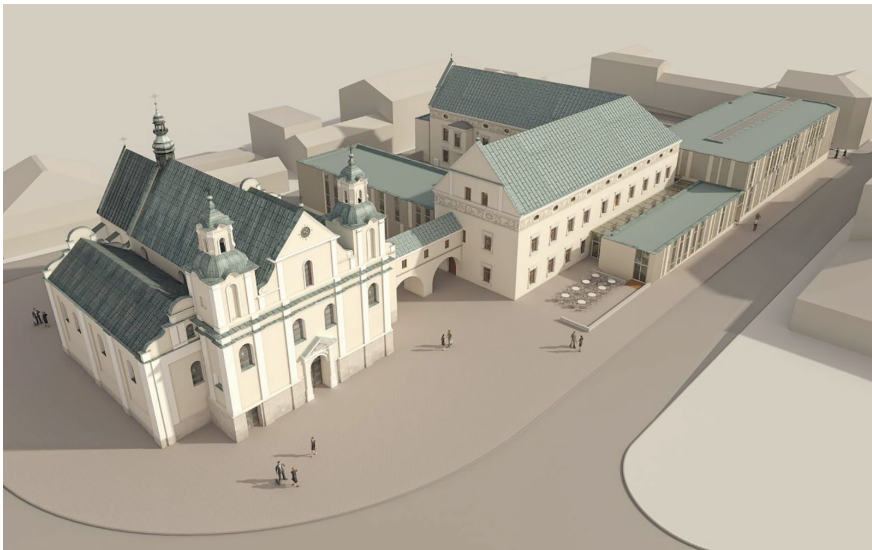


Fig. 21. Revalorisation project. View from the north-western side. Authors of the project: M. Błażewicz, S. Oset; visualization: P. Najwer

Drying the walls of the sacral complex

In the first place, before preparing the project of revalorization, it was necessary to deal with the issues of recognition of the problem of insulation and dehumidification of historic walls of buildings. The problem of humidity in historic buildings is a common phenomenon. It results from the historically applied construction techniques — first of

all, from the lack of insulation system in historic buildings. In the 19th century, new solutions were introduced using bituminous insulation materials. These solutions were not widely used, even for representative buildings [31, p. 159–72]. The earlier solutions of waterproof mortars, known in Poland since the 16th century, did not show the durability of the solutions in the long term.

In the case of the discussed downtown area, construction and investment activities were also a deteriorating factor of the condition of the architectural fabric. It involved the densification of the quarters of the Old Town, which caused a change in groundwater levels. Due to the location of the St Sigismund's Church complex in the vicinity of the Warta River, there was a possibility of floodings of the area. Therefore, the ground floors of the church buildings were the most vulnerable to dampness. The building material traditionally used for the construction of the old town in Częstochowa, including the discussed sacral complex, was limestone. Its morphological feature is porosity and high water absorption. This caused the phenomenon of capillary rise of water, starting from the foundations through the walls of the first and subsequent stories. Rainfall and humid air increased the dampness of the building walls.

The consequences of these phenomena were excessive air humidity in the rooms and white efflorescence of crystallized salt on the plaster and the occurrence of house fungus on the walls. Actions to stop the negative effects consisted mainly in cutting off the source of moisture and attempts to dry the damp walls. In order to properly solve the problem, it was first necessary to investigate the water situation in the vicinity of the building: groundwater level, proximity of water reservoirs, rainwater drainage. This required specialist engineering work.

The research confirmed considerable dampness of the walls. The lowest mass humidity of the material inside the partition was found at the level of the first floor at 1.73%, which indicates that the material inside the external wall is practically dry. At the ground floor level, the mass humidity reached a value of 12.1%. This is a level of humidity which qualifies the masonry to be dried and protected against further dampness. The highest level of humidity in the external wall material was found at the basement level, exceeding 22%, which indicates persistent moisture as a result of capillary rise of water from the ground and the need to dry and protect against moisture (fig. 22) [VI] (see also indoor air parameters in the table).

In the restoration project it was decided to use modern technology. A device was applied which uses gravitational field and magnetic field of the earth, which in effect is supposed to lead to withdrawal of water from the wall. The use of this system is expected to dry all the walls simultaneously to the natural moisture level (fig. 23) [32].



Fig. 22. Measurement points in a room: a) in the basement, b) on the ground floor, c) on the first floor

Photo by A. Ujma

Table. Indoor air parameters

Level/story	Air temperature	Relative air humidity
	°C	%
basement	14.9	67
ground floor	1.7	78
first floor	1.5	75



Fig. 23. Suspended from the vault, the device uses the gravitational field and the earth's magnetic field to stop capillary rise of water from the ground. Photo by M. Błażewicz

Summary

The expansion of the existing sacral complex and the restoration and modernization works highlight the cultural values of the place, where the historical heritage and the newly designed building structure create a new attractive part of the city. The cooperation of a number of institutions and people involved in realising the concept of revitalizing the historic complex based on a well-prepared financial plan has successfully completed the entire construction process. The process of revitalizing the St Sigismund monastery complex in Częstochowa reflects the condition of the monument protection program in Poland. Despite the sincere intentions of all parties involved (investor, designer, conservator) to carry out the process in the best possible way, the investment revealed numerous problems at a systemic level. The pressure associated with the possibility of losing external sources of funding led to cases of having to quickly find design compromises in the face of new discoveries made during the renovation.

When delving into the process of revitalizing the historic St Sigismund Monastery complex, one gets the impression that the monument protection program and solutions developed by this system are not optimal. However, at this point they are an effective form of solution in the conditions of market economy, ownership rights and pressure to modernize inner-city areas.

References

1. Borusiewicz, Władysław. *Konserwacja zabytków budownictwa murowanego*. Warszawa: Arkady, 1985.
2. Pod’iapol’skii, S., G. Bessonov, L. Beliaev, V. Korin, T. Postnikova, and Iu. Tabunshchikov. *Restoration of Architectural Monuments*. Ed. by Sergei Pod’iapol’skii. 2nd ed. Moscow: Stroizdat Publ., 2000. (Spetsial’nost’ “Arkhitektura”). (In Russian)
3. Mikhailovskii, Evgenii. *Restoration of Architectural Monuments*. Foreword by P. Maksimov. Moscow: Stroizdat Publ., 1971. (In Russian)
4. Zachwatowicz, Jan. “O polskiej szkole odbudowy i konserwacji zabytków”. *Ochrona Zabytków* 34, no. 1–2 (1981): 4–10.
5. Gazzola P., H. Daifuku, E. A. Connelly, P. Sanpaolezi, M. Sekino, and H. Forramitti. *Preservation and Restoration of Monuments and Historical Buildings*. Rus. ed. Transl. by N. Sukhodrev and Zh. Rozenbaum. Moscow: Stroizdat Publ., 1978. (Muzei i pamiatniki, 14.) (In Russian)
6. Barbacci, Alfredo. *Il guasto della città antica a del Paesaggio*. Firenze: Le Monnier, 1962.
7. Pilar León-Castro Alonso, María, del. “Hacia una nueva visión de la Córdoba romana”. In *Colonia Patricia Corduba: una reflexión arqueológica*, ed. Junta de Andalucía, Consejería de Cultura, 17–35. Córdoba: Seville, 1996.
8. León-Castro Alonso, Pilar. “Prologo”. In *Córdoba en tiempos de Séneca: catálogo de la exposición conmemorativa del MM aniversario del nacimiento de Lucio Anneo Seneca: Córdoba, Palacio de la Merced, 7 de noviembre — 7 de diciembre, 1996*, ed. by Desiderio Vaquerizo Gil, 15–9. Córdoba: Diputación de Córdoba; Universidad de Córdoba, 1996.
9. Bellonci, M., G. A. Dell’Acqua, and C. Perogalli. *I Visconti a Milano*. Milano: Amilcare Rizzi per Cariplo, 1977.
10. Pane, Roberto. “Some Considerations on the Meeting of Experts Held at UNESCO House, 17–21 October 1949”. *Museum International* 3, iss. 1 (1950): 49–62. <https://doi.org/10.1111/j.1468-0033.1950.tb00083.x>
11. Ranninskii, Yulii. *The Basic Principles of Conservation and Use of Architectural Monuments in the Ensemble of the City*. Moscow: Markhi Publ., 1980. (In Russian)
12. Ranninskii, Yulii. *The Basics of the Preservation of Architectural Monuments in the Continuous Development of the Ensemble*. Moscow: Markhi Publ., 1980. (In Russian)
13. *Issues of Protection, Restoration and Promotion of Historical and Cultural Monuments: Collected Articles*. Science ed. and comp. by Eleonora Shulepova. Moscow: NIIK Publ., 1980. (Trudy NII kul’tury, iss. 93.) (In Russian)

14. *Restoration of Cultural Monuments: Problems of Restoration*. Ed. and foreword by Dmitrii Likhachev. Moscow: Iskustvo Publ., 1981. (In Russian)
15. Iaralov, Iu., N. Gulianitskii, V. Baldin, et al. *Methodology and Practice of Preservation of Architectural Monuments*. Moscow: Stroizdat Publ., 1974. (In Russian)
16. Shchenkov, A., T. Viatchanina, I. Merkulova, et al. *The Modern Look of the Monuments of the Past: Historical and Artistic Problems of the Restoration of Architectural Monuments*. Ed. by Aleksandr Shchenkov. Moscow: Stroizdat Publ., 1983. (In Russian)
17. Shchenkov, Aleksandr, ed. *History and Theory of Restoration of Architectural Monuments: Collection of Scientific Papers*. Moscow: TsNIPgradostroitel'stva Publ., 1986. (In Russian)
18. Szmygin, Bogusław. "System ochrony zabytków w Polsce — próba diagnozy". In *System ochrony system ochrony zabytków w Polsce abytków w Polsce — analiza, diagnoza, propozycje*, ed. Bogusław Szmygin, 7–15. Lublin; Warszawa: Polski Komitet Narodowy ICOMOS; Biuro Stołecznego Konserwatora Zabytków Urzędu Miasta Stołecznego Warszawa; Politechnika Lubelska, 2011.
19. Filipowicz, Paweł. "Zabytki w praktyce". *Zawód: architekt*, no. 73 (2020): 14–20.
20. Tomaszewski, Andrzej. "Ku pluralistycznej filozofii konserwatorskiej XXI wieku". *Ochrona Zabytków* 53, no. 1/208 (2000): 1–4.
21. Braun, Juliusz. *Częstochowa: urbanistyka i architektura*. Warszawa: Arkady, 1979.
22. Sołkiewicz-Kos, Nina. "Częstochowa — formy rozwoju i ich wpływ na współczesne rozwiązania funkcjonalno-przestrzenne". In *Creative Urbanism: The 100th Anniversary of the Urban Planning Education at Lviv Politechnic*, ed. by Bohdan Cherkes and Halyna Petryshyn, 478–82. Lviv: Lviv Polytechnic Publishing House, 2014.
23. Zadworny, Mariusz. "Częstochowa — aktualne problemy rozwoju miasta, poszukiwanie współczesnego oblicza miasta". In *Creative Urbanism: The 100th Anniversary of the Urban Planning Education at Lviv Politechnic*, ed. by Bohdan Cherkes and Halyna Petryshyn, 483–86. Lviv: Lviv Polytechnic Publishing House, 2014.
24. Chudowska-Rączka, Dorota. "Program rewitalizacji w Częstochowie". W wyd. *Przykłady rewitalizacji miast*, ed. Alina Muzioł-Węclawowicz, 199–232. Kraków: Instytut Rozwoju Miast, 2010.
25. Zemła, Marek, główny projektant. *Częstochowa: studium uwarunkowań i kierunków zagospodarowania przestrzennego*. Łódź: Przedsiębiorstwo zagospodarowania miast i osiedli "Teren", 2010.
26. Rouba, Bogumiła Jadwiga. "Potrzeba badań konserwatorskich". In *Zabytek zadbany. Co to znaczy?*, red. Iwona Liżewska, 37–52. Warszawa: Narodowy Instytut Dziedzictwa, 2015.
27. "Historia parafii". Parafia pw. Świętego Zygmunta w Częstochowie. Accessed: August 5, 2021. <http://www.swietyzygmunt.pl/strony/id/42/Historia-Parafii>.
28. Małachowicz, Edmund. *Ochrona środowiska kulturowego*. Wydanie II. 2 vols. Warszawa: PWN, 1988. Vol. 2.
29. Worpole, Ken. *Here Comes the Sun: Architecture and Public Space in Twentieth-Century European Culture*. London: Reaktion Books, 2000.
30. Rouba, Bogumiła Jadwiga. "Zawilgocenie — problem opiekuna kościoła". Accessed: August 2, 2021. <https://www.wuoz.malopolska.pl/wp-content/uploads/2019/10/Zawilgocenie-problem-opiekuna-ko-C5%9Bcio-C5%82a-dla-ksi-C4%99-C5%BCy.pdf>.
31. Trochonowicz, Maciej. "Problematyka oceny stanu wilgotnościowego w obiektach adaptowanych do współczesnych funkcji". In *Adaptacja obiektów zabytkowych do współczesnych funkcji użytkowych*, red. Bogusław Szmygin, 159–72. Warszawa; Lublin: Lubelskie Towarzystwo Naukowe; Międzynarodowa Rada Ochrony Zabytków ICOMOS; Politechnika Lubelska, 2009.
32. Lim, Solida. "Badania nad skutecznością metody elektrofizycznej w zwalczaniu wilgotności kapilarnej malowideł ściennych". *Acta Universitatis Nicolai Copernici Zabytkoznawstwo i Konserwatorstwo* 42 (2011): 39–70. https://doi.org/10.12775/AUNC_ZiK.2011.013

Sources

- I. "Ustawa z dnia 23 lipca 2003 r. o ochronie zabytków i opiece nad zabytkami". Dz. U. 2003. Nr 162. Poz. 1568.
- II. "Rozporządzenie Ministra Kultury i Dziedzictwa Narodowego z dnia 2 sierpnia 2018 r. w sprawie prowadzenia prac konserwatorskich, prac restauratorskich i badań konserwatorskich przy zabytku wpisanym do rejestru zabytków albo na Listę Skarbów Dziedzictwa oraz robót budowlanych, badań architektonicznych i innych działań przy zabytku wpisanym do rejestru zabytków, a także badań archeologicznych i poszukiwań zabytków". Dz. U. 2018. Poz. 1609.

- III. Borowska-Antoniewicz, J., R. Eysymontt, J. Wojcieszak, and M. Wojcieszak. *Rewitalizacja zespołu poklasztorного parafii Św. Zygmunta w Częstochowie: katalog, materiały parafii*. Częstochowa: Parafia Rzymskokatolicka p. w. św. Zygmunta w Częstochowie, 2014.
- IV. Błażewicz, Mariusz, and S. Oset. *Projekt budowlany. Rewitalizacja zespołu poklasztorного Parafii p.w. Św. Zygmunta w Częstochowie: manuskrypt*. Częstochowa, 2010.
- V. Sołkiewicz-Kos, Nina. "Interview with the Chief Designer Architect Mariusz Błażewicz", *Personal Archive*, June 10, 2021.
- VI. Ujma, Adam. *Opinia techniczna dotycząca oceny zawilgocenia ścian zewnętrznych w obiekcie "A" zespołu Klasztorного Parafii św. Zygmunta w Częstochowie: manuskrypt*. Częstochowa, 2013.

Received: December 18, 2020

Accepted: February 24, 2022

Authors' information:

Nina Sołkiewicz-Kos — PhD in Architecture, ninasolkiewiczkos@gmail.com

Nina V. Kazhar — Dr. Habil. in Architecture, Professor; nkazhar@bud.pc.pl

Mariusz Zadworny — Dr. Habil. in Architecture, Professor; mzadw5@hotmail.com